



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,160	02/03/2004	Ronald C. Tate	1505-0170	1860
7590 05/17/2007				
Harold C. Moore Maginot, Moore & Beck Bank One Center/Tower 111 Monument Circle, Suite 3000 Indianapolis, IN 46204-5115				
			EXAMINER KARLSEN, ERNEST F	
			ART UNIT 2829	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/772,160	Applicant(s) TATE, RONALD C.	
	Examiner Ernest F. Karlsen	Art Unit 2829	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 March 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 and 21-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 21-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                                  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____   |

In the specification, page 1, the paragraph beginning "Cross-reference" has errors.

Claims 22-24 and 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what is meant by the "flexible member biased toward" in any of claims 22-24 and 26-28.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loy et al '010 in view of Jackson et al '004. Loy et al '010 show in Figures 2A and 2B, current coils which are substantially identical in shape and asymmetrical about a midpoint, see columns 3 and 4 of Loy et al '010, but does not show the current coils to be of unitary construction. Jackson et al '004 shows current coils of unitary construction. It would have been obvious to one of ordinary skill in the art at the time of the invention to have constructed the apparatus of Loy et al '010 of flat metal as shown by Jackson et al '004 because one of ordinary skill in the art would realize that so doing would decrease manufacturing expense of the apparatus of Loy et al '010. The above is the exact rejection made in the previous Office Action. A question exists regarding the level of skill of one of ordinary skill in the art. The Examiner contends that one of ordinary skill would realize that current coils of the type shown by Jackson et al '004 would be

easier and cheaper to make than those of Loy et al '010 and that one of ordinary skill would find it obvious to structure the apparatus of Loy et al '010 in the manner disclosed by Jackson et al '004. Applicant contends that such would be beyond one of ordinary skill in the art. It is further noted that Applicant discloses in the BACKGROUND OF THE INVENTION section of his specification, at pages 2 and 3, structure of the general type shown by Jackson et al '004 (Jackson et al '004 is not mentioned) is cheaper and easier to make than other structures. The Examiner maintains the obviousness rejection.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 22-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loy et al '010 in view of Jackson et al '004 and Loy '867. Loy et al '010 show in Figures 2A and 2B, current coils which are substantially identical in shape and asymmetrical about a midpoint, see columns 3 and 4 of Loy et al '010, but does not show the current coils to be unitary construction or a voltage sensing element in contact with the current coils. Jackson et al '004 shows current coils of unitary construction. Loy '867 show voltage sensing springs 42 and 43 (see Figure 6) coupling a voltage signal between the current coils and a pad on a circuit board 38. It would have been obvious to one of ordinary skill in the art at the time of the invention to have constructed the apparatus of

Loy et al '010 of flat metal as shown by Jackson et al '004 and to have adapted the voltage coupling technique of Loy '867 to the resulting combination because one of ordinary skill in the art would realize that so doing would decrease manufacturing expense and effort of the apparatus of Loy et al '010. With regard to claims 22-24 and 26-28, elements 42a and 43a of Loy '867 are considered flexible plate members biased toward the current coil. Elements 42b and 43b of Loy '867 are springs. With regard to claim 25, elements 52a and 52b of Loy '867 are exposed conductive portions.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernest F. Karlsen whose telephone number is 571-272-1961. The examiner can normally be reached on 8 hrs. Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ha Nguyen can be reached on 571-272-1678. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ernest F. Karlsen

May 14, 2007

  
ERNEST KARLSEN  
PRIMARY EXAMINER